

CLAIMS

1. A method of adhesion of conductive materials comprising the step (1) of forming an adhesive surface having an adhesive resin layer on a conductive material by an electrodeposition step with an adhesive composition and the step (2) of joining an adherend surface of an adhesion target to the adhesive surface having the adhesive resin layer obtained in the step (1),
10 wherein the adhesive composition comprises a hydratable functional group- and unsaturated bond-containing cationic resin composition.
2. The method of adhesion of conductive materials according to Claim 1,
15 wherein the adhesive composition is substantially incapable of generating any volatile matter in the step of heating for curing.
3. The method of adhesion of conductive materials according to Claim 1 or 2,
20 wherein the cationic resin composition is one allowing the formation, in the adhesive resin layer, of such chemical species activated by the electrode reaction caused by voltage application in the electrodeposition step as can promote the progress of the curing reaction.
25
4. The method of adhesion of conductive materials according to any of Claim 1 to 3,
30 wherein the hydratable functional group is a sulfonium group.
5. The method of adhesion of conductive materials according to any of Claim 1 to 4,
35 wherein the unsaturated bond is at least partly a

propargyl carbon-carbon triple bond.

6. The method of adhesion of conductive materials according to any of Claim 1 to 5,

5 wherein the cationic resin composition has a sulfonium group content of 5 to 400 millimoles, a propargyl group content of 10 to 495 millimoles, and a total content of sulfonium and propargyl groups of not more than 500 millimoles, per 100 g of the solid matter in the cationic resin composition.

10

7. The method of adhesion of conductive materials according to any of Claim 1 to 6,

wherein the cationic resin composition has a sulfonium group content of 5 to 250 millimoles, a propargyl group content
15 of 20 to 395 millimoles, and a total content of sulfonium and propargyl groups of not more than 400 millimoles, per 100 g of the solid matter in the cationic resin composition.

8. The method of adhesion of conductive materials according
20 to any of Claim 1 to 7,

wherein the cationic resin composition has an epoxy resin as a skeleton.

9. The method of adhesion of conductive materials according
25 to Claim 8,

wherein the epoxy resin is a novolak cresol epoxy resin or novolak phenol epoxy resin and has a number average molecular weight of 700 to 5,000.

30 10. The method of adhesion of conductive materials according to any of Claim 1 to 9,

which comprises a drying step between the step (1) and step (2).

35 11. The method of adhesion of conductive materials according

to any of Claim 1 to 10,

wherein the step (2) comprises a step of adhesion with heating and a step of curing by heating.

5 12. The method of adhesion of conductive materials according to any of Claim 1 to 11,

wherein the adherend surface is an adhesive surface having an adhesive resin layer.

10 13. The method of adhesion of conductive materials according to any of Claim 1 to 12,

wherein the adhesion target is a conductive material and the adherend surface is an adhesive surface having an adhesive resin layer formed by an electrodeposition step of a conductive
15 material with an adhesive composition.

14. The method of adhesion of conductive materials according to any of Claim 1 to 13,

wherein the conductive material is made of copper,
20 aluminum, iron, or an alloy mainly composed of these:

15. A laminate as obtained by the method of adhesion of conductive materials according to any of Claim 1 to 14.

25 16. An adhesive composition capable of forming an adhesive resin layer by an electrodeposition step,

wherein the adhesive composition comprises a hydratable functional group- and unsaturated bond-containing cationic resin composition.

30